

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE  
REV. 2-32) PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT  
FEB 23 2004 (Use several sheets if necessary)

ATTY. DOCKET NO. NHL-NP-43	SERIAL NO. 10/646,620
<b>APPLICANT</b>	
WITTIG et al.	

  

FILING DATE August 22, 2003	GROUP 1645
--------------------------------	---------------

## U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
AL	9 1 0 2 8 1	12/1999	International			X	
AM	9 9 2 2 1 0 3	9/1999	International			X	
AN	19 8 2 6 7 5 8	10/1999	Fed. Rep. of Germany				X
AO	0 9 6 7 2 7 4	12/1999	Europe				X
AP	0 9 4 1 3 1 8	Europe				X	

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ	J Managed Care Pharm 1999: 414-419.
AR	Stein et al., Proc. Nat. Acad. Sci. USA 87, 5935-5939 (1990).
AS	Stein et al., J. Neuroscience 10, 1292-1298 (1990).

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INITIALS vwtDATE MAILED 2/18/2004

FORM PTO-1449 (Rev. 2-32)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. NHL-NP-43	SERIAL NO. 10/646,620
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICANT WITTIG et al.	
(Use several sheets if necessary)		FILING DATE August 22, 2003	GROUP 1645

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
AL							
AM							
AN							
AO							
AP							

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ	Cabot et al., J. Clin. Invest. 100, 142-148 (1997).	
AR	Schäfer et al. Proc. Nat. Acad. Sci. USA. 91, 4219-4233.	
AS	ibid. 93, 6096-6100 (1996).	

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered; whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INITIALS vwt

DATE MAILED 2/18/2004

FORM PTO-1449 (Rev. 2-32)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. NHL-NP-43	SERIAL NO. 10/646,620
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICANT WITTIG et al.	
(Use several sheets if necessary)		FILING DATE August 22, 2003	GROUP 1645

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	NO
AL							
AM							
AN							
AO							
AP							

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ <sup>2</sup>	Machelska et al., Nature Medicine 4, 1425-1428 (1998). /
AR <sup>2</sup>	Machelska and Stein, Current Opinion in Anaesthesiology 1999, 579-581.
AS <sup>2</sup>	Ishii et al. (Experimental Neurology 166, 90-98 (2000)).

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INITIALS vwtDATE MAILED 2/18/2004

FORM PTO-1449 (Rev. 2-32)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. NHL-NP-43	SERIAL NO. 10/646,620
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICANT WITTIG et al.	
(Use several sheets if necessary)		FILING DATE August 22, 2003	GROUP 1645

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
AL							
AM							
AN							
AO							
AP							

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ <sup>3</sup>	Lu et al. (Neural Transplant Plast 4, 15-26 (1993).		
AR <sup>3</sup>	Feingold and Iadarola (Hum Gene Therapy 10 (7); 1251-7 (1999),		
AS <sup>3</sup>	Wilson et al. (Proc Natl Acad Sci USA 96, 3211-6 (1999);		

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INITIALS vwt

DATE MAILED 2/18/2004

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. NHL-NP-43	SERIAL NO. 10/646,620
INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (Use several sheets if necessary)		APPLICANT WITTIG et al.	
		FILING DATE August 22, 2003	GROUP 1645

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES      NO
AL						
AM						
AN						
AO						
AP						

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ <sup>4</sup>	Grauerholz et al., Peptides 19, 939-948 (1998).
AR <sup>4</sup>	Bauer M. et al.; Abstract Sun27, 31th Conference 2000 INRC, July 16 <sup>th</sup> to July 18 <sup>th</sup> 2000, Seattle, Washington USA.
AS <sup>4</sup>	Chemin I. et al., J. Viral Hepat. Nov; 5(6) 369-75, 1998.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INITIALS vwtDATE MAILED 2/18/2004

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE  
(Rev. 2-32) PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO.  
NHL-NP-43SERIAL NO.  
10/646,620

## APPLICANT

WITTIG et al.

FILING DATE  
August 22, 2003GROUP  
1645

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
AL							
AM							
AN							
AO							
AP							

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ <sup>6</sup>	Tanelian et al., "Gene Therapy with Adenoviral B-Endorphin is Antinociceptive," Anesthesiology, American Society of Anesthesiologists, Philadelphia, PA., USA, Bd. 85, Nr. 3A, September 1996 (09/1996);
AR <sup>6</sup>	Schafer et al., "Interleukin 1 beta and corticotropin-releasing factor inhibit pain by releasing opioids from immune cells in inflamed tissue," Proceedings of the National Academy of Sciences of the United States of America, U.S., May 10, 1994, Bd. 91, Nr. 10, May 10, 1994 (05/10/1994), Pages 4219-4223, XP002211429, ISSN: 0027-8424;
AS <sup>6</sup>	Database EMBL 'Online!, EMBL; January 28, 1986 (01/28/1986), "EMBL:RNCRFR - Rat mRNA for corticotropin-releasing factor precursor (prepro-CRF)" retrieved from WWW.EBI.AC.UK, Database accession no. X03036, XP002211430;

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INITIALS ywt

DATE MAILED 2/18/2004

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. NHL-NP-43	SERIAL NO. 10/646,620
INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (Use several sheets if necessary)		APPLICANT WITTIG et al.	
		FILING DATE August 22, 2003	GROUP 1645

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	NO
AL							
AM							
AN							
AO							
AP							

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ <sup>b</sup>	Database EMBL 'Online!, EMBL; July 29, 1991 (07/29/1991), "EMBL:HSPOMC9 - Human proopiomelanocortin (POMC) gene, exon 3." retrieved from WWW.EBI.AC.UK; Database accession no. J00292, XP002211431;
AR <sup>b</sup>	Chang et.al.; "Structural organization of human genomic DNA encoding the pro-opiomelanocortin peptide," Proceedings of the National Academy of Sciences of the United States of America, United States Aug. 1980, Bd. 77, Nr. 8, August 1980 (08/1980), pages 4890-4894, XP001095590, ISSN: 0027-8424;
AS <sup>b</sup>	Database EMBL 'Online!, EMBL; June 13, 1985 (06/13/1985), "EMBL:RNPOMC3 - Rat proopiomelanocortin (POMC) gene, exon 3." retrieved from WWW.EBI.AC.UK, Database accession no. J00759, XP002211432; and

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INITIALS ywtDATE MAILED 2/18/2004

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE  
(Rev. 2-32) PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO. NHL-NP-43	SERIAL NO. 10/646,620
APPLICANT	
WITTIG et al.	
FILING DATE August 22, 2003	GROUP 1645

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	NO
AL							
AM							
AN							
AO							
AP							

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ	Wilson et al., "Herpes virus-mediated preproenkephalin gene transfer to the amygdala is antinociceptive," Brain Research, 792, 133-5 (1998)
AR	
AS	

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INITIALS vwtDATE MAILED 2/18/2004